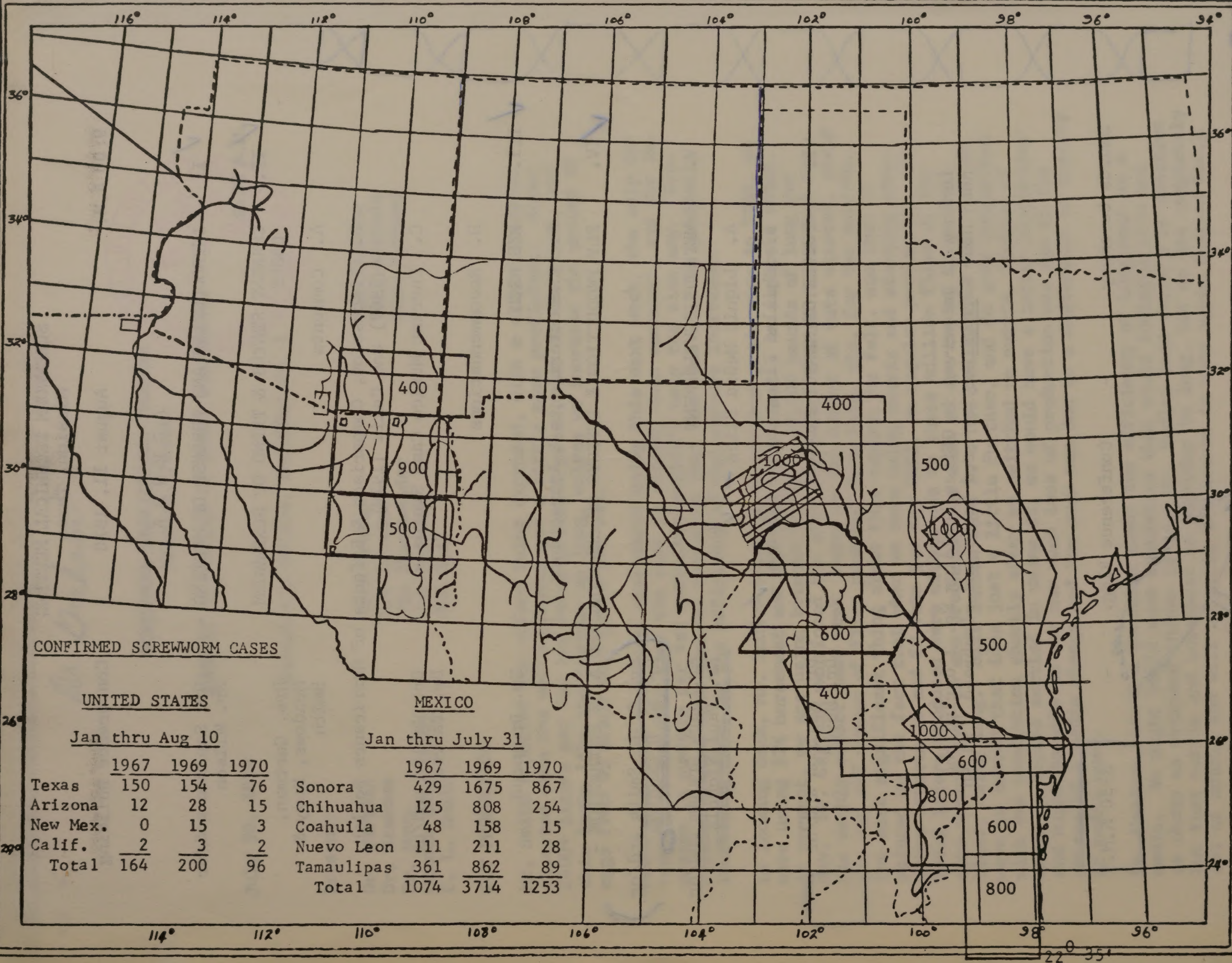




CONFIRMED SCREWORM CASES

UNITED STATES

Jan thru Aug 10

	1967	1969	1970
Texas	150	154	76
Arizona	12	28	15
New Mex.	0	15	3
Calif.	2	3	2
Total	164	200	96

MEXICO

Jan thru July 31

	1967	1969	1970
Sonora	429	1675	867
Chihuahua	125	808	254
Coahuila	48	158	15
Nuevo Leon	111	211	28
Tamaulipas	361	862	89
Total	1074	3714	1253

SCREWORM TECHNICAL MEETING
Mission, Texas

9:00 A.M.

August 11, 1970

Conference Building

A G E N D A

- ✓ I. INTRODUCTION AND PURPOSE OF MEETING - Dr. Saulmon and/or Dr. Wilson
- ✓ II. CURRENT STATUS & TREND OF SCREWORM CASES -
A. Comments Drs. Gartman, Meadows, Novy & Smith
B. Discussion, Comparison & Effects of Hurricanes Beulah (1967) and Celia (1970)
C. Current Mexico Case Status - Dr. Heflin and/or Dr. Tarver
D. Recommendations
- ✓ III. RESEARCH - Dr. Drummond
A. Chemosterilants & Attractants
- ✓ IV. FLY PRODUCTION & EFFECTS OF CHANGING MEDIA ON PRODUCTION -
Mr. C. L. Smith and/or Mr. W. H. Sudlow
- V. METHODS DEVELOPMENT -
A. Liquid Media Flies - ✓ Mr. Jack Graham and/or Mr. Paul Nichols
B. Chilled Flies before Release ✓
- VI. FUTURE OF MEXICO PROGRAM - Dr. Saulmon and/or Dr. Meyer

Lunch will be served in Office Building No. 1 during the noon hour - Texas style - red beans and cornbread. \$1.50

Awards Ceremony

- Conference Bldg. -

8:30 A.M.

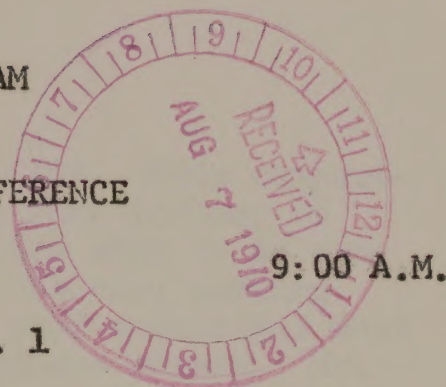
Mr. Graham

SCREWORM ERADICATION PROGRAM
Mission, Texas

SUMMARY OF MINUTES OF STAFF CONFERENCE

July 30, 1970

Director's Office, Building No. 1



Present:

Dr. Gartman
Dr. Meadows
Dr. Novy
Gaines Eddy (ENT)
C. L. Smith

Jack Graham
Ken Lattimore
Vic Blackwelder
Joe Smithey
Bob Hull

Bill Sudlow
Paul Nichols
Gene Hammond

FLY PRODUCTION

Mr. Smith reported top effort being expended, with a slight increase expected when the new employees get a little more proficient. About 2900+ liters per day are being produced green, out of the plant, and this looks like the maximum on lung, unless we increase the amount of eggs from $6\frac{1}{2}$ grams to 7 grams per vat.

Mr. Sudlow said they have considered doing this next week, the only deterrent is the fact that the size is already down somewhat, and the increase in numbers per vat certainly wouldn't help the size any. Discussion ensued with general consensus that the size will be gradually increasing also, as the efficiency of the workers increases.

In looking back, Mr. Sudlow reported at maximum production in 1968, we were using 37% horsemeat and 63% lung (not mixed - on separate vats). At present, we are using between 40,000 - 43,000 pounds of lung per day. Dr. Gartman mentioned the statistics Jack Graham researched for his weekly report last week, based on the number of vats started, yield per vat and number of flies produced from this, etc. for two periods. The most significant thing about this report, he felt, was that it pointed up the fact that when we were using nutria and starting somewhere between 70 and 80 vats per day LESS, on regular production, our total liters produced were within one to three million flies of the same number that we are producing now when we are trying to go full blast, using lung. Bill Sudlow said it's not really that bad - if we were to extend that idea just a little further, and do some comparison with our production shortly after we switched to nutria, instead of after we became settled in using it, we would have a better comparison and might be able to see how much loss of production was due to the stress of a media change and how much was due to a difference in quality of media used.

Dr. Meadows raised a question about the efficiency of lung meat as a media. We might build some statistics that would indicate it's not as cheap as everyone thinks it is. Mr. Sudlow said there's no question but that nutria and horsemeat is superior to lung, but we are completely out of nutria and will be until the season is open again. (Approx Dec.)

SCREENWORM ERADICATION PROGRAM
Mission, Texas

SUMMARY OF MINUTES OF STAFF CONFERENCE

9:00 A.M.

July 30, 1950

Director's Office, Building No. 1

Present:

Dr. Garmann	Jack Graham	Bill Sudlow
Dr. Meadows	Ken Lattimore	Paul Nichols
Dr. Henry	Vic Blackwelder	Gene Hammond
Gaines (ENT)	Joe Smith	
C. L. Smith	Bob Hall	

THE PRODUCTION

Dr. Smith reported top effort being expended, with a slight increase expected when the new employees get a little more proficient. About 2500+ liters per day are being produced green, out of the plant, and this looks like the maximum on lung, unless we increase the amount of eggs from 64 grams to 7 grams per vat.

Dr. Sudlow said they have considered doing this next week, the only deterrent is the fact that the size is already down somewhat, and the increase in numbers per vat certainly wouldn't help the size any. Discussion ensued with general consensus that the size will be gradually increasing also, as the efficiency of the workers increases.

In looking back, Dr. Sudlow reported at maximum production in 1948, we were using 37% increase and 500 lung (not asked - on separate vats). At present, we are using between 50,000 - 63,000 pounds of lung per day. Dr. Garmann mentioned the statistics Jack Graham researched for his weekly report last week, based on the number of vats started, yield per vat and number of flies produced from this, etc. for two periods. The most significant thing about this report, he felt, was that it pointed up the fact that when we were using nuclei and starting somewhere between 70 and 80 vats per day 1948, on regular production, our total liters produced were within one to three million flies of the same number that we are producing now when we are trying to go full blast, using lung. Bill Sudlow said it's not really that bad - if we were to extend that idea just a little further, and do some comparison with our production shortly after we switched to nuclei, instead of after we became settled in using it, we would have a better comparison and might be able to see how much loss of production was due to the stress of a media change and how much was due to a difference in quality of media used.

Dr. Meadows raised a question about the efficiency of lung meat as a media. We might build some statistics that would indicate it's not as cheap as everyone thinks it is. Dr. Sudlow said there's no question but that nuclei and hormone is superior to lung, but we are completely out of nuclei and will be until the season is open again. (Approx Dec.)

Presently lung is 11¢ a pound and horsemeat is 19¢. This comparison also points up another thing, which is the inefficiency of jumping into all out production right at the time when it is necessary to change media. This gives us several factors working against each other, and although we know from past experience what is about to happen, and try to avoid it, it happens anyway. Mr. Graham said his figures show a drop in size of about 2 mg., which isn't too bad. We have been averaging about 64 mg. on nutria and average size is down to about 62 mg. and is not expected to get any smaller.

Dr. Gartman expressed his thanks to everyone concerned, in all departments, for the care and concern they have given to the many problems we have had in the past few weeks, in trying to achieve maximum production as quickly as possible. In another week (August 11) we will be having a technical conference here and all eyes will be on our operation. Although we have not developed a firm agenda as yet, we're sure of several items that will be discussed. One, of course, will be the production thing we have just been discussing. Another will be our field operations - how and when and where we are putting our flies. It is also hoped we have a sound objective discussion on hydros and arrive at some concrete proposals that will have to do with our future using liquid media for raising screw-worms. Another item that should be discussed is our chilled fly experiments and it is regrettable that we do not have any more information on them than we do. The work we have done should be documented with pictures, graphs, test results of all kinds - but we don't have this kind of information.

Attendees at the meeting will include Dr. Saulmon, Dr. Wilson and possibly others from Washington, as well as a delegation from Mexico City and the usual group from the states. Dr. Gartman said he would check with Dr. Henderson (T.A.H. C.) about issuing an invitation to the commissioners, if they would like to attend.

FIELD OPERATIONS

Dr. Meadows reported we have had four cases this week, all in Terrell County. Most recent case (today) was from Bell & Kenny Ranch - they have had several cases before and have sprayed with Co-Ral, and are treating animal wounds with a smear. Things are looking real good, but Dr. Meadows is still concerned about the surveillance part of the whole situation. As he has been out in west Texas recently, Dr. Novy will give us a report on this.

Dr. Novy summarized: Since the second week in June, we have had nearly 70 screwworm cases in a three county area in the trans-Pecos region - Pecos, Terrell & Brewster Counties mainly, with 2 cases in Presidio. Most of the cases we have had in the past two weeks have been repeat cases with a large percentage of them occurring in man-made wounds. Terrell County is fairly dry country with some green valleys or "draws" running through it. The cases we have had have been mostly along these green draws. Most of the ranchers are

doing some spraying with Co-ral now and as they gather their sheep and/or goats for shearing, they plan to spray and also use a smear for wounds. Although in the area just up the road from Sheffield to Big Canyon almost every rancher has had screwworm cases, we have no way of knowing just how many other cases, unreported, have occurred. All the ranchers he talked with mentioned the scarcity of ranch help, and the handicap which it imposes on their ranching operation. One rancher only has one ranch hand - a Mexican national - and he has over 100 sections with three to four thousand head of goats. Most of these ranchers handle their stock with either one cowboy plus themselves or they may share part time help with some of their neighbors and schedule their work accordingly.

Dr. Meadows commented as much rain as Texas has had, he thinks we can still have trouble. He doesn't believe our surveillance is nearly as good as it was 8 or 10 years ago when the program first started, and fears the possibility of a buildup with nobody knowing about it.

Dr. Novy said as he sees the situation right now, the important thing is to try to contain this outbreak where it is. With the sheep shearing season coming up, and normal fall rains occurring, we could be in big trouble if a migration of these flies should take place into the Hill Country. General feeling is that what takes place in the next two or three weeks will determine what will happen in the fall - a big fall buildup, a small buildup, or no buildup at all.

MAINTENANCE

Dr. Gartman asked if problems connected with our difficulties of last Thursday when the power failed due to the wind storm have been ironed out. Mr. Smithey said they are doing some schooling on the operation of the emergency power units, procedures to be followed in the event such a failure occurs again, and shortly we will have an abundance of qualified people who know how to put the emergency generators into service. Dr. Meadows suggested that an SOP be written as to what should be done first, second, third, and so on when an emergency occurs. Mr. Smithey said this is already being done, although there was an SOP posted by each emergency power unit, apparently this was not adequate. He is preparing an overall SOP to cover emergency situations. Dr. Gartman said when he receives this, he will publish a SW memorandum incorporating this information and setting responsibility for taking care of different phases of this work. Foremen on duty in the plant should be trained in order to help the maintenance night man on duty; during C Shift there is usually only one night man on duty, and without help it could take several hours for him to get all the emergency equipment started.

AIRCRAFT MAINTENANCE

Gene Hammond reported no big problems - other than the fact that his assistant Merle Cooper is in the hospital with several problems, including a heart attack. (Reports to date are that he continues to improve and is out of danger.) Dr. Meadows asked how the wing modi-

fications are coming along on the Beechcraft. Mr. Hammond reported six completed and three more in San Antonio being done. The modification looks real good; did not change the flying characteristics at all. Dr. Novy commented even the pilots said they couldn't tell the difference.

METHODS DEVELOPMENT

Mr. Graham said he had very little to add, except a reminder that when we get going with the 12 vats per shift, every shift will have to do a little more than they have been doing with the hydros. Previously, all hydro production on the one line has been started on "B" Shift, but with the continuous line going, part of this will have to be done on each shift.

Dr. Gartman commented there's no doubt about it but our biggest worms right now are coming off the hydro production, but he doesn't want the line of hydros to cause any lag in our regular production for any reason. Mr. Graham did not anticipate any problems other than a slight change in procedure which should not cause any difficulty once it is instituted.

In answer to a query about the chilled fly experiments, Mr. Nichols said they are still working with a refrigerated box and are just about ready to test it in the field. They have done over 20 tests using the small room and all indications are that they can collect 80 - 90% of the flies, six hours after emergence, using a black light. Mr. Nichols said he had spent most of a day this week in Brownsville with the people who are doing similar work with the pink bollworm moth. Their operation is small but they are using a kind of tent apparatus now that seems to work out best for them. Dr. Gartman said we need some good reports on our studies for the technical meeting, test results, pictures, whatever is possible and perhaps a proposal as to what steps we should take next.

ADMINISTRATION

Mr. Hull reported continued difficulty in getting meat deliveries as scheduled. With the quantities of lung presently being consumed, when a delay in receipt of a truckload does occur, it causes problems. The contract as awarded was based on projected production somewhat less than the all out push we have been engaged in for the past few weeks, and this puts a stress on the contractor, the cold storage situation and also our trucks hauling from there. However, we are continuing to work this out on a day to day basis.

Mr. Smithey asked if it might not be a good idea to have enough hydro supplies on hand to switch to hydro production if we should run out of meat. Dr. Gartman and others felt this was a good idea, as it is much easier and cheaper to store ~~6 mo.~~ supply of dry products for use in an emergency, rather than meat. Mr. Graham will look into this.

Meeting adjourned 10:35 A.M.

Technical meeting, mission - August 11 ▽

00000

⊕

☐ Dave Lindsay

<u>Texas</u>	<u>Thru</u> <u>July 25</u>	<u>Total</u>
1970 -	71	
1969 -	155	161
68 -	1203	9268
67 -	101	835
66 -	155	1203
65 -	254	466
64 -	98	223
63 -	1780	4916

novey - grid on top of grid in Terrell Co. +
 medina - wualde Co.. Flight lanes are
 angled about 45° -
 meadows - one million plus cost \$800

Gartman - Hurricanes Beulah & Celia

14 tons of dust X 200,000

200
 28,000,000
 packets

Jack Graham - recommended that all larvae
 be started on hydro

Dr. Beal - commented reference
 homogenization - of cottage cheese - and
 other ingredients in liquid medium -

Jack Graham - ref chilling of flies -
 apparently chilling at 45°F for 24 hrs
 had little or no adverse effect on survival
 (45° ± 2°F) - 40°F might be as
 good as 45°

INFORMATION REPORT

Mary K. Mahoney
Information Specialist
Texas Agricultural Extension Service

Since the last ARS Joint Technical Planning Conference (USDA) was held at Mission, the Extension Service has prepared and distributed 163 news articles to daily and weekly newspapers, radio and television stations. These were situational-type news articles pinpointing areas where cases were being confirmed, how many, and general trend-type information.

Additionally, 11 feature articles with photographs and caption lines were prepared and distributed to daily newspapers with farm pages, a number of magazines, and special edition newspapers. Photographs numbered 30 in this type of distribution.

The information specialist also worked with the two Valley television stations and KENS-TV in San Antonio prior to the filming of several special television tapes at the Mission Screwworm Plant.

A highlight of the information work was the organization of a Press Tour into the states of Tamaulipas and San Luis Potosi, Mexico, in May, 1970. Eleven press members and two other information representatives made the tour of ranches in the Ciudad Victoria and Valles areas, conducted interviews and made many photographs for use in promoting the program. Five radio tapes were made, one television documentary, several slide sets for television use, television scripts, newspaper and magazine articles were written and distributed as a result of the Press Tour. Best of all, perhaps, the press representatives had an opportunity to meet many gracious rancher hosts and obtain a better understanding of the country and the people.

Two Progress Reports also have been prepared each month and distributed to more than 1,800 persons in the southwestern states.

